Amendments to the claims:

Claims 1 to 32 (canceled)

Claim 33 (original): A method of creating a library of nucleic acid sequences comprising:

a) incubating a first double-stranded nucleic acid with an enzyme with exonuclease activity to form a plurality of single stranded DNA regions having random sizes;

b) treating said plurality of single stranded DNA regions with a recombination factor to form a plurality of pretreated single stranded DNA regions;

c) adding a second double-stranded nucleic acid to the plurality of pretreated single stranded DNA regions to form a plurality of three stranded crossover junctions;

d) incubating said plurality of three stranded crossover junctions with a helicase to form a plurality of Holliday junctions; and

e) resolving said plurality of Holliday junctions by incubation with an endonuclease.

Claim 34 (original): The method of claim 33 wherein said recombination factor is bacteriophage T4 UvsX.

Claim 35 (original): The method of claim 33 wherein said helicase is bacteriophage T4 gene products 41 and 59.

Claim 36 (original): The method of claim 33 wherein said helicase is bacteriophage T4 UvsW.

Claim 37 (original): The method of claim 33 wherein said endonuclease is bacteriophage T4 gene product 49.